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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/786,116

Applicant(s)

KOBAYASHI ET AL.

Examiner

KIMBERLY LOVEL

Art Unit

2167

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
Paper No(s)/Mail Date 1/16/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This communication is in response to the Amendment filed 16 January 2008.
2. Claims 1, 2, and 6-17 are currently pending and claims 3-5 are cancelled. In the Amendment filed 16 January 2008, none of the claims were amended. This action is made Non-Final.
3. The rejections made in the previous Office Action have been withdrawn as necessitated by Applicants' arguments.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 16 January 2008 was filed after the mailing date of the Office Action on 16 October 2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

5. The rejections of **claims 11 and 16** are under 35 U.S.C. 112, first paragraph have been withdrawn as necessitated by Applicants' arguments.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 11 and 16** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

8. **Claims 11 and 16** are directed towards an apparatus. However, it is noted that the use of the word "apparatus" does not inherently mean that the claim is directed towards a machine or article of manufacture. Each unit of the claimed apparatus can be interpreted as comprising entirely of software *per se* according to one of ordinary skill in the art. Therefore, the claim language fails to provide the necessary hardware required for the claim to fall within the statutory category of an apparatus.

According to MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8

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(noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

9. To allow for compact prosecution, the examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 101 rejections.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1 and 6-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,062,532 to Sweat et al (hereafter Sweat et al) in view of US Patent No. 5,933,825 to McClaughry et al (hereafter McClaughry et al) in view of US Patent No 7,249,314 to Walker et al (hereafter Walker).

Referring to claim 1, Sweat et al disclose an information processing method [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35), comprising:

a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitations of a retrieval step, a determination step and a setting step. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitations of:

a retrieval step of retrieving a data item [folders B and C and files D, E, F and G] which belongs to a lower layer of the data item [folder A] designated in the first designation step on the basis of hierarchical structure information of the plurality of data items (see column 8, lines 45-48 – the children of folder A are retrieved);

a determination step of determining whether or not an exclusive control right by another process is set, for each data item in the retrieval step (McClaghry et al: see column 5, lines 36-58 and column 5, line 59 – column 6, line 14); and

a setting step of setting the exclusive control right for the specific process as to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and as to a retrieved data item retrieved in said retrieval step (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) and for which it is determined in said determination step that an exclusive control right by another process is not set (McClaghry et al: see column 5, lines 36-58 – determining if the lock is available and if so, acquiring the lock) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaghry et al's method of retrieving children in a hierarchy of objects and applying the same control rights as the parent as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism

for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

While the combination of Sweat et al and McClaughry et al (hereafter Sweat/McClaughry) discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McClaughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClaughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released), Sweat/McClaughry fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said

second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step [releasing child containers before releasing the parent container] (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClaughry. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Referring to claim 6, the combination of Sweat/McClaughry and Walker (hereafter Sweat/McClaughry/Walker) discloses the method according to claim 5, wherein said first release step includes a step of releasing the exclusive control right by the specific process of data items, for which no exclusive control right by another process is set, of the data items retrieved in said retrieval step (McClaughry et al: see column 5, lines 36-58 – determining if the lock is available and if so, acquiring the lock).

Referring to claim 7, Sweat/McClaughry/Walker discloses the method according to claim 1, wherein said setting step has a first setting mode [setting a read contents (RC) lock] for setting the exclusive control right by the specific process when no exclusive control right is set for the designated data item and all data items retrieved in the retrieval step (McClaughry et al: see column 5, lines 35-44), and a second setting mode [setting Hierarchy Read Contents (HRC) lock] for setting the exclusive control

right by the specific process for data items for which no exclusive control right is set, of the designated data item and data items retrieved in said retrieval step (McClaghry et al: see column 5, line 58 – column 6, line 14), and an exclusive control right setting process is executed in a designated one of the first (McClaghry et al: see column 5, lines 41-44) and second setting modes (McClaghry et al: see column 6, lines 2-4).

Referring to claim 8, Sweat/McClaghry/Walker discloses the method according to claim 7, wherein a user can designate a desired one of the first and second setting modes (McClaghry et al: see column 8, lines 59-60 – since the user is copying folder A, it is considered that the user is selecting to use a RC lock).

Referring to claim 9, Sweat/McClaghry/Walker discloses the method according to claim 7, wherein information indicating which of the first and second setting modes is to be applied is assigned to each of the plurality of data items (McClaghry et al: see column 8, lines 59-60 – the lock is acquired for folder A and the children of folder A).

Referring to claim 10, Sweat/McClaghry/Walker discloses the method according to claim 1, wherein an upper limit value of exclusive control rights to be set is set for each of the plurality of data items, and said setting step includes a step of setting the exclusive control rights within the set upper limit value (Sweat et al: see column 9, lines 19-34 – limiting the number of saved versions when determining the rights of a user).

Referring to claim 11, Sweat et al disclose an information processing apparatus [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a

specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35), comprising:

- a holding unit [ProjectPoint contains projects] for holding hierarchical structure information of the plurality of data items (see column 3, line 57 – column 4, line 26);

- a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitation of a setting unit. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitation of a setting unit for setting the exclusive control right by the specific process to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and a data item which is related to the designated data item (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) on the basis of the hierarchical structure information and belongs to a layer lower than the data item designated by said first designation unit (see column 8, lines 45-48 – the children of folder A are retrieved), wherein the setting unit sets exclusive control right of the specific process only as to

data items, to which no exclusive control right is set by another process, including the designated data item and data items which belong to a lower layer than the designated item (see column 5, lines 35-48 and column 5, line 59 – column 6, line 14) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaughry et al's method of retrieving children in a hierarchy of objects and applying the same control rights as the parent as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

While Sweat/McClaughry discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McClaughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClaughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released)), Sweat/McClaughry fails to explicitly disclose the further limitation of a first release step

of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClaughry. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Referring to claim 12, Sweat/McClaughry/Walker discloses a control program [software] stored in a computer-readable storage medium for making a computer

execute an information processing method of claim 1 (Sweat et al: see column 3, lines 36-39).

Referring to claim 13, Sweat/McClaghry/Walker discloses a storage medium storing a control program for making a computer execute an information processing method of claim 1 (Sweat et al: see column 3, lines 27-35).

Referring to claim 14, Sweat et al disclose an information processing method [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35), comprising:

a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitations of a setting step of setting the exclusive control right by the specific process to the designated data item and a data item which belongs to a layer lower than the data item designated in the designation step on the basis of hierarchical structure information of the plurality of data

items. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitations of:

a setting step of setting the exclusive control right by the specific process to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and a data item (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) which belongs to a layer lower than the data item designated in the first designation step on the basis of hierarchical structure information of the plurality of data items (see column 8, lines 45-48 – the children of folder A are retrieved), wherein the setting unit sets exclusive control right of the specific process only as to data items, to which no exclusive control right is set by another process, including the designated data item and data items which belong to a lower layer than the designated item (see column 5, lines 35-48 and column 5, line 59 – column 6, line 14) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaughry et al's method of applying the control rights to an item and then applying the same control rights to the children of the item as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

While Sweat/McClaughry discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McClaughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClaughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released)), Sweat/McClaughry fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an

upper layer of the data item designated in said second designation step (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClaughry. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Referring to claim 15, Sweat et al disclose an information processing method [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35), comprising:

a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitations of a retrieval step, a determination step and a setting step. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitations of:

a retrieval step of retrieving a data item [folders B and C and files D, E, F and G] which belongs to a lower layer of the designated data item [folder A] designated in the first designation step on the basis of hierarchical structure information of the plurality of data items (see column 8, lines 45-48 – the children of folder A are retrieved);

a determination step of determining whether or not an exclusive control right by another process is set, for each data item in the retrieval step (McClaughry et al: see column 5, lines 36-58 and column 5, line 59 – column 6, line 14); and

a setting step of setting the exclusive control right for the specific process as to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and as to a retrieved data item retrieved in said retrieval step (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaughry et al's method of retrieving children in a hierarchy of objects and applying the same control rights as the parent as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism

for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

While the combination of Sweat et al and McClaughry et al (hereafter Sweat/McClaughry) discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McClaughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClaughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released)), Sweat/McClaughry fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step [target element] and a data item which belongs to a lower layer of the data item

designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step (see column 44, lines 10-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClaughry. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Referring to claim 16, Sweat et al disclose an information processing apparatus [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35), comprising:

a holding unit [ProjectPoint contains projects] for holding hierarchical structure information of the plurality of data items (see column 3, line 57 – column 4, line 26);

a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered

to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitation of a setting unit. McLaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitation of a setting unit for setting the exclusive control right by the specific process to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and a data item which is related to the designated data item (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) on the basis of the hierarchical structure information and belongs to a layer lower than the data item designated by said first designation unit (see column 8, lines 45-48 – the children of folder A are retrieved) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McLaughry et al's method of retrieving children in a hierarchy of objects and applying the same control rights as the parent as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

While Sweat/McLaughry discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McLaughry et

al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClaughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released)), Sweat/McClaughry fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released (see column 9, lines 11-13), including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClaughry. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Referring to claim 17, Sweat et al disclose an information processing method [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35), comprising:

a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitations of a setting step of setting the exclusive control right by the specific process to the designated data item and a data item which belongs to a layer lower than the data item designated in the

designation step on the basis of hierarchical structure information of the plurality of data items. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitations of:

a setting step of setting the exclusive control right by the specific process to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and a data item (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) which belongs to a layer lower than the data item designated in the first designation step on the basis of hierarchical structure information of the plurality of data items (see column 8, lines 45-48 – the children of folder A are retrieved) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaughry et al's method of applying the control rights to an item and then applying the same control rights to the children of the item as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

While Sweat/McClaughry discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McClaughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the

exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClaughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released)), Sweat/McClaughry fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock

disclosed by Sweat/McClaughry. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,062,532 to Sweat et al in view of US Patent No. 5,933,825 to McClaughry et al in view of US Patent No 7,249,314 to Walker et al as applied to claim 1 above, and further in view of US Patent No. 6,215,495 to Grantham et al (hereafter Grantham et al).

Referring to claim 2, Sweat/McClaughry/Walker discloses assigning control rights to data items in a hierarchy, however, Sweat/McClaughry/Walker fails to explicitly disclose the further limitation wherein the data is a scene graph database, which is referred to upon generation of computer graphics of a virtual space. Grantham et al also disclose assigning control rights to data items in a hierarchy (see abstract and column 7, lines 49-54), including the further limitation wherein the data is a scene graph database which is referred to upon generation of computer graphics of a virtual space (see column 4, lines 17-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Grantham et al's scene graph database as the data described by Sweat/McClaghry/Walker. One would have been motivated to do so in order to provide since the method of Sweat/McClaghry/Walker can apply to any database (Sweat et al: see column 3, lines 52-55).

Response to Arguments

14. Applicant's arguments with respect to claims 1, 2, 6-17 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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